

## **SOP 31 – Picric Acid**

### **Handling Precautions:**

- a. Picric acid is distributed by the manufacturer wet with greater than 10% water and is classified as a flammable solid. Never allow Picric Acid to dry out. Dry Picric Acid is highly explosive!!
- b. Use the smallest amount of reagent possible to complete the experiment.
- c. Dry picric acid is especially explosive when combined with metals such as copper, lead, zinc and iron.
- d. Picric acid will react with alkaline materials including plaster and concrete to form explosive materials.
- e. If a container of picric acid is found of unknown vintage, do not attempt to open it! The container could explode from friction on the crystals between the grooves of the cap and the threads. Contact your supervisor immediately.

### **Storage/Disposal:**

- a. Material must be wet at all times. Inspect and add water every six months as needed.
- b. Materials older than 2 years will be disposed of when the annual waste pickup occurs.
- c. Get rid of bottles with metal caps.
- d. Keep container tightly closed.
- e. Stored in cool, dry area.
- f. Keep away from heat, sparks and open flames.

### **Personal Protection:**

- a. Eye Protection – chemical resistant splash goggles that are also impact resistant.
- b. Gloves – Neoprene
- c. Ventilation – Use in a hood with at least 100 fpm face velocity.
- d. Respirator – may be required if large volumes are being used or the acid has the potential to be volatilized. Use a NIOSH-approved respirator with an acid mist cartridge.
- e. Clothing – Lab coat to protect you and your clothing. A splash protective apron is recommended for work with large volumes or frequent handling.

### **First Aid:**

- a. Wash any exposed areas of skin with large volumes of water.

- b. If eye contact has been made, flush eyes in eye wash for 15 minutes.
- c. Contact your supervisor and the CDSO if an exposure has occurred.

**Spill Remediation:**

- a. Spills should be diluted with water and not allowed to dry. Use an inert, inorganic absorbent to soak up water-diluted spills of picric acid. A mop and water bucket may also be used.
- b. Notify your supervisor of any spill that has occurred.